

D R A F T

Country Environmental Profile

MALAYSIA

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Acronyms

APEC	-	Asia-Pacific Economic Cooperation
ASEAN	-	Association of Southeast Asian Nations
CBD	-	Convention on Biological Diversity
CDM	-	Clean Development Mechanism
CEP	-	Country Environmental Profile
CIS	-	Commonwealth of Independent States
CGIAR	-	Consultative Group on International Agricultural Research
CITES	-	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSD	-	Commission on Sustainable Development of the UN
CSP	-	Country Strategy Paper
DESA	-	Department for Economic and Social Affairs
DOE	-	Department of Environment
EC	-	European Commission
ECE	-	Economic Commission for Europe
EEZ	-	Exclusive Economic Zone
EIA	-	Environmental Impact Assessment
EPU	-	Economic Planning Unit (Prime Minister's Department)
ESCAP	-	Economic and Social Commission for Asia and the Pacific
EU	-	European Union
FAO	-	Food and Agriculture Organization of the UN
FIDA	-	Foundation for International Development Assistance
GATT	-	General Agreement on Tariffs and Trade
GAW	-	Global Atmosphere Watch (WMO)
GEF	-	Global Environment Facility
GEMS	-	Global Environmental Monitoring System (UNEP)
GESAMP	-	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	-	Greenhouse Gas
GIS	-	Geographical Information Systems
GLOBE	-	Global Legislators Organisation for a Balanced Environment
GOS	-	Global Observing System (WMO/WWW)
GRID	-	Global Resource Information Database
HIV/AIDS	-	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	-	International Atomic Energy Agency
ICSC	-	International Civil Service Commission
ICSU	-	International Council of Scientific Unions
ICT	-	Information and Communication Technology
ICTSD	-	International Centre for Trade and Sustainable Development
IEEA	-	Integrated Environmental and Economic Accounting
IFAD	-	International Fund for Agricultural Development
IFCS	-	Intergovernmental Forum on Chemical Safety
IGADD	-	Intergovernmental Authority on Drought and Development
ILO	-	International Labour Organisation

IMF	-	International Monetary Fund
IMO	-	International Maritime Organization
IOC	-	Intergovernmental Oceanographic Commission
IPCC	-	Intergovernmental Panel on Climate Change
IPCS	-	International Programme on Chemical Safety
IPM	-	Integrated Pest Management
IRPTC	-	International Register of Potentially Toxic Chemicals
ISDR	-	International Strategy for Disaster Reduction
ISO	-	International Organization for Standardization
ITTO	-	International Tropical Timber Organization
IUCN	-	World Conservation Union
LA21	-	Local Agenda 21
LDCs	-	Least Developed Countries
MARPOL	-	International Convention for the Prevention of Pollution from Ships
MBCSD	-	Malaysian Business Council for Sustainable Development
MEAs	-	Multilateral Environmental Agreements
NEAC	-	National Economic Action Council
NEAP	-	National Environmental Action Plan
NGOs	-	Non-Governmental Organizations
NRE	-	Ministry of Natural Resources and Environment
NSDS	-	National Sustainable Development Strategies
ODA	-	Official Development Assistance/Overseas Development Assistance
OECD	-	Organisation for Economic Co-operation and Development
PAN	-	Pesticide Action Network
PPP	-	Public-Private Partnership
SACEP	-	South Asian Cooperative Environment Programme
SARD	-	Sustainable Agriculture and Rural Development
SIDS	-	Small Island Developing States
SMEs	-	Small and Medium Scale Enterprises
SPREP	-	South Pacific Regional Environment Programme
UN	-	United Nations
UNAIDS	-	United Nations Programme on HIV/AIDS
UNCED	-	United Nations Conference on Environment and Development
UNCCD	-	United Nations Convention to Combat Desertification
UNCHS	-	United Nations Centre for Human Settlements (Habitat)
UNCLOS	-	United Nations Convention on the Law of the Sea
UNCTAD	-	United Nations Conference on Trade and Development
UNDP	-	United Nations Development Programme
UNDRO	-	Office of the United Nations Disaster Relief Coordinator
UNEP	-	United Nations Environment Programme
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
UNFCCC	-	United Nations Framework Convention on Climate Change
UNFF	-	United Nations Forum on Forests
UNFPA	-	United Nations Population Fund
UNHCR	-	United Nations High Commissioner for Refugees

UNICEF	-	United Nations Children's Fund
UNIDO	-	United Nations Industrial Development Organization
UNIFEM	-	United Nations Development Fund for Women
UNU	-	United Nations University
WFC	-	World Food Council
WHO	-	World Health Organization
WMO	-	World Meteorological Organization
WRI	-	World Resources Institute
WSSD	-	World Summit on Sustainable Development
WTO	-	World Trade Organization
WWF	-	World Wildlife Fund
WWW	-	World Weather Watch (WMO)

1. Summary

Formalised and structured environmental management in Malaysia started when the Department of Environment (DOE) was established following the Environmental Quality Act of 1974: the country's first environmental legislation. Initially most attention was focused on addressing pollution issues.

More recently, the importance of biodiversity and the sustainable management of natural resources are acknowledged. However, with a policy focus on the rapid industrialisation and economic development, environmental protection generally receives secondary priority, and environmental laws are not always implemented fully.

The environmental awareness of the public is limited. At the local level actions mainly focus on avoiding immediate environmental dangers, rather than mainstreaming environmental concerns in the overall development plans. At the international level Malaysia is an active partner in environmental cooperation.

The combination of severe environmental concerns and environmental policy problems calls for a number of priority actions in such areas as pollution control, food safety and energy policies. Special attention is called for the capacity building of local authorities. The EC is recommended to embark on a sustained policy dialogue with the Malaysian Government – particularly with the EPU – on the mainstreaming of environmental concerns in development planning.

2. State of the environment

2.1 Physical environment

Malaysia covers a surface of 329.733 km² of land, which includes West Malaysia, and the states of Sarawak and Sabah in East Malaysia. In addition a surface of 549.500 km² are considered territorial waters. They cover areas in the Straits of Melaka, the Straits of Johor, the South China Sea, the Sulu Sea and the Sulawesi Sea¹.

Mountain ranges run the length of both Peninsular Malaysia and the Sabah-Sarawak states. Human settlements are concentrated along the alluvial plains towards the coast, leaving much of the country under forest cover on hill-slopes and foothills. Malaysia has a humid tropical climate with an average temperature in the lowlands ranging between 26°C and 28°C. Seasonal variations in climate are more evidently marked by rainfall patterns, which in turn closely mirror changes in the monsoon winds blowing at different times of the year. Some low-lying areas experience floods, particularly during the Northeast monsoon season.

Most coastal regions are low-lying areas that are less than 0,5 m above the highest astronomical tide, or are within 100 m inland of the high-

¹ <http://www.unep.net/profile/profile.cfm?countrycode=MY&tab=203>

water mark. These regions are especially vulnerable to the effects of sea-level rise. The mangroves, which currently fringe many parts of the coastline, could be forced to retreat further inland. This could likely be constrained by hinterland development. Only 7% of the mangrove forests are protected². Vegetation types in the cooler upland regions, delineated by temperature limits, are also vulnerable to global warming.

Malaysia is endowed with abundant water resources. However, with the Government's continued emphasis on industrialisation programmes to boost economic growth, industrial and domestic water usage will continue to increase. This comes on top of substantial irrigation needs in the agricultural sector. Water shortages occur in some areas with uneven distribution and demand, as well as due to seasonal variations. Such local areas of Malaysia are prone to drought, and climate change may aggravate such drought conditions.

Besides water availability, access to uncontaminated water is also becoming a critical issue. The main sources of river water pollution are from the discharge of domestic sewage, manufacturing, pig farming, agricultural production and land clearing and earthworks³. Over the period 1990-2000, the percentage of clean rivers fell from 53,3% (48 rivers) to 28,3% (34 rivers) out of 120 river basins monitored⁴.

Rapid urbanisation and industrial growth also account for the continued increase in air pollution. The main sources of air pollution are the transportation and industrial sector. The increasing number of vehicles remains the main cause of air quality deterioration, particularly in major towns such as Kuala Lumpur. The periodic episodes of haze due to the persistent occurrence of forest fires exacerbate the air pollution situation to critical levels, especially in the Klang Valley⁵.

2.2 Biological conditions, biodiversity, ecology and nature conservation

Malaysia is considered one of the 12 mega-diversity countries of the world, and the country recognises the natural, economic, technological and social values of its biological diversity. The country's flora is exceptionally rich and the diversity of its fauna is equally great. Many species only exist in Malaysia. It is estimated that there could be over 15.000 known species of flowering plants, 286 species of mammals, 150.000 species of invertebrates, over 1.000 species of butterflies, 12.000 species of moths and over 4.000 species of marine fish in the country. The recent discovery of a new tree species (*Vatica yeechongyii*) in May 2004 in Selangor and Negeri Sembilan demonstrates that the extent of diversity is still not fully known⁶.

² <http://earthtrends.wri.org>

³ Malaysian Quality of Life 2004, Economic Planning Unit, Prime Minister's Department, p. 49

⁴ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 189

⁵ Idem, p. 189

⁶ UNDP – Malaysia, achieving the millennium development goals, successes

To ensure the protection and conservation of its biodiversity, Malaysia has created a network of protected areas that are representative of the ecosystems found. This network of protected areas for forests is covered under Wildlife Sanctuaries, National Parks, State Parks, and Wildlife Reserves and totals up to 3,3 million hectares. In addition there is a total of about 0,2 million hectares of protected forest within the Permanent Reserve Forests.

In 1995, Tasek Bera became the first area in Malaysia for the protection and sustainable use of freshwater ecosystems under the Ramsar Convention. The management programme also includes the integration of sustainable use by local and indigenous communities through ecotourism activities. Another ecosystem that has been protected for its resources is the fisheries and coral reef ecosystem. Malaysia has around 40 marine parks. The fourth unique ecosystem that is represented through the protected area network is the cave ecosystem. It is represented by the Gunung Mulu and Gunung Niah National Parks in Sarawak⁷.

The network of protected areas covers about 10% of the total land area of Malaysia. It is part of the total percentage of forested land that according to official figures increased from 58,9% to 61,3% during the period 1990-2002. This was the result of concerted efforts by the Government for reforestation and the establishment of forest plantations⁸. Such forest reserves are managed under the Forestry Department of each state. The objective of the Department is to maintain the forest ecosystem, while allowing for the use of forest products and services. Different categories of use are identified, such as timber production, water catchment, soil protection, recreation, research, and wildlife protection⁹.

From the beginning of the 80-ies, the Government of Malaysia pushed for fast economic development. Though the results have been impressive, the focus on economic growth and development resulted in the neglect of the natural environment in certain areas. For example, though not well known amongst the population, the loss of biodiversity is one of the consequences of this¹⁰. The Government of Malaysia recognises that in the past, the focus of forest management was largely on the management of forests for timber production, with less emphasis being given to the non-timber functions of forest management. The forests are now managed in a more holistic and integrated manner to ensure a balance between development and environmental conservation. Establishing the network of protected areas for the conservation of biological diversity is one example of the new approach¹¹. Forestry activities, however, remain the

and challenges (2005), p. 184

⁷ Idem, p. 184

⁸ Malaysian Quality of Life 2004, Economic Planning Unit, Prime Minister's Department, p. 47

⁹ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 183, 184

¹⁰ Country Profile Malaysia, Netherlands Ministry of Foreign Affairs
http://www.minbuza.nl/default.asp?CMS_NOCOOKIES=YES&CMS_ITEM=AF87F4AE0728458CBCD3E69DD8E1A7DCX3X37571X19

¹¹ <http://www.un.org/esa/agenda21/natlinfo/wssd/malaysia.pdf>; chapter 11

jurisdiction of the respective state governments, which determine the allocations of public forest harvesting rights and management priorities. The challenge is to ensure that national policies are implemented uniformly at the state level¹².

The forest areas in the Main Range highlands are protected to safeguard water supplies. No commercial logging is allowed in areas above 1.000 metres and on slopes of forty degrees or steeper. The National Biodiversity Policy, launched in April 1998, provides a framework for integrating and consolidating biodiversity programmes and projects in the country¹³.

Malaysia does not suffer from prolonged drought periods. Such conditions may occur on the rare chance of an El Nino type effect coinciding with limited rainfall. Although Malaysia is not affected by the problem of desertification, there are mechanisms and programmes in place within government agencies at both the state and federal levels to deal with emergencies related to severe drought conditions and associated problems including forest fires, diminished water supplies and food shortages. The Forestry Department, in conjunction with local Fire Departments, is responsible for putting out forest fires in forest reserves and other federal lands. The local state authorities (e.g. District Office) and federal agencies also cooperate with military and police forces to overcome life-threatening situations to communities related to fire and lack of water¹⁴.

On 25 February 2005 news reports were published on the air quality in Kuala Lumpur being seriously affected by forest fires in a number of states (Pahang, Selangor, Perak, Kelantan and Johor) underscoring the importance of the proper implementation of such mechanisms and programmes¹⁵. One month later, at the end of March 2005, the haze caused by the forest fires in peninsular Malaysia still seriously affected the air quality in and around Kuala Lumpur¹⁶.

2.3 Socio-economic and socio-cultural conditions and human health

The Ministry of Health takes the lead role in initiating efforts to coordinate, collaborate and resolve issues in health and the environment. The District Health Office is responsible for preventive programmes such as communicable disease control, vector control as well as environmental sanitation. Local authorities also undertake disease control activities with internal health inspectorates. They play an important role in detecting and preventing contagious diseases in urban and semi-urban areas. The public and private sectors have worked together to implement environmental health measures, e.g. in the field of occupational health and safety, or by

¹² UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 198

¹³ <http://www.un.org/esa/agenda21/natinfo/wssd/malaysia.pdf>; chapter 13

¹⁴ <http://www.un.org/esa/agenda21/natinfo/wssd/malaysia.pdf>; chapter 12

¹⁵ http://www.channelnewsasia.com/stories/afp_asiapacific/view/134408/1/.html

¹⁶ Personal observation

participating in the Healthy City Initiative of the World Health Organisation (WHO). Emphasis was placed on the promotion of health with the support and commitment of the community and on improved access to health facilities.¹⁷

Within the Ministry of Health, the National Food Safety & Nutrition Council is in charge of the national food safety policy. The objective of this policy is to provide direction and instructions to all stakeholders in establishing and implementing food safety measures, through collaborative efforts to safeguard consumers' health. It aims to address the full food chain, from individual producers to consumers ("from farm to table"). To implement this policy, a National Action Plan involving all stakeholders was launched in 2002. Since food imports and exports are a significant concern, Malaysia is actively seeking international cooperation in this field to enable compliance with international food safety standards and procedures. The application of better food safety standards is generally considered an urgent need for Malaysia¹⁸.

Major water demand comes from irrigation for agricultural purposes (10,4 billion m³ in 2000) followed by domestic and industry use (4,8 billion m³ in 2000)¹⁹. In this light, the development of river basins is officially being carried out in an integrated manner to understand the optimum carrying capacity and the nature of the water resources within each river basin. High population pressures may require greater coverage by hydrometric networks. Surface and groundwater resources have been fully identified and quantified, and various programmes are in place for their protection.

Rapid development, however, has created gaps in the prevention of pollution and enforcement of water supply standards. There is a need for greater efficiency in water use, including in the area of water re-use for irrigation and improved water management practices and infrastructure. Conservation measures include reducing non-revenue water losses and the use of mass media to increase awareness on proper use. The proposed National Water Policy and the new National Water Resources Master Plan, which covers the planning horizon up to the year 2050, is meant to provide the strategies and guiding principles for the future development and conservation of national water resources²⁰.

The new common water policy would promote integrated development, equitable allocation of resources, a uniform regulatory framework and a set of water standards, harmonised water tariffs, greater cost recovery, and overall environmental integrity. Reducing pollution from household sewage would provide a major improvement in the quality of the country's rivers. Similarly, effluents from manufacturing industries should be minimised, especially by exercising greater control of the pollution from small- and medium-scale industries²¹.

¹⁷ <http://www.un.org/esa/agenda21/natlinfo/wssd/malaysia.pdf>; chapter 6

¹⁸ Personal communication with the Finnish Embassy in Malaysia, 22.03.05

¹⁹ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p.186

²⁰ <http://www.un.org/esa/agenda21/natlinfo/wssd/malaysia.pdf>; chapter 18

²¹ UNDP – Malaysia, achieving the millennium development goals, successes

Another priority for Malaysia is the environmentally sound management of toxic chemicals and the enhancement of chemical safety with particular reference to banned and severely restricted chemicals. Emphasis is being placed on:

- Reviewing existing environmental measures with respect to rapid industrialization;
- Giving priority to improved measures for toxic chemical and hazardous waste management, including the use of environmentally sound technologies;
- Ensuring adherence to acceptable effluent and emission standards by industry and other environmental policies and practices;
- Ensuring approval of new and appropriate industrial investments;
- Ensuring significant efforts in R&D by the public sector in identifying suitable and effective waste disposal systems; and
- Providing clear codes and guidelines for industries and monitoring their compliance.

In order to control the field application of pesticides and ensure the proper disposal of pesticide containers, the Pesticides Board and related agencies will be strengthened and relevant legislation will be reviewed. In tackling water pollution originating from the use of pesticides in the agriculture sector, focus will be placed on promoting sound cultivation practices and the use of advanced agricultural methods including precision farming²².

In practice the balance between environmental concerns and economic interests seems hard to strike. In August 2002 the Government of Malaysia announced a ban and subsequent phase out on the use of Paraquat, an herbicide that is widely used, especially in oil palm plantations. Plantation workers are particularly exposed to the adverse health risks of this agrochemical. Very much to the dismay of Malaysian NGOs like Pesticide Action Network (PAN AP) or Tenaganita, the Minister of Agriculture and Agro-Based Industries announced on 15 April 2005 to review this ban after "presentations" were made to his ministry by small holder and 'key' industry players". The statement of PAN AP reflects: "the government's action only goes to show that once again, the industries profits override the health considerations of the people"²³.

The energy sector is an essential sector for a sustained economic development, to raise the productivity and to support modern lifestyles. The industrial sector was the largest energy consumer, accounting for over 37% of the total commercial energy demand in 2000. The transport sector consumed almost as much (over 36%), whereas the combined residential and commercial sector share was less than 13% of the total. Compared with many industrialised nations, per capita energy consumption is relatively modest but is growing rapidly in tandem with economic development. Through the rural electrification programme, it is anticipated that continued investment would achieve 95% of rural

and challenges (2005), p.199

²² <http://www.un.org/esa/agenda21/natinfo/wssd/malaysia.pdf>; chapter 19

²³ <http://www.panap.net/highlights.cfm?id=48&hilitid=HILITE48>
and: <http://geeklog.tenaganita.net/article.php?story=20050422171701740>

electricity coverage in Malaysia by 2005, with Sabah and Sarawak achieving 85% and 90% respectively.

The energy policy of Malaysia is aimed at reducing the dependence on a single source of energy and developing alternative sources of supply. The following are the main sources of energy of the country²⁴:

Energy source	% in year 2000
Oil and petroleum products	53
Natural gas	37
Coal (mainly imported)	3
Other (mainly hydroelectricity)	7
Total	100

From these figures it is clear that Malaysia quite heavily depends on fossil fuels for its energy supply. The share of renewable energy in the overall energy supply is very limited. The potential to further develop hydroelectric resources lies mostly in East Malaysia, while the greater demand for energy remains in Peninsular Malaysia. Effective transfer of appropriate energy technologies might enable Malaysia to harness unique domestic renewable energy sources, improve energy efficiency, increase self-sufficiency, and later, export these energy technologies²⁵.

In Malaysia's Energy Plan (2001-10) the development of renewable energy is given specific priority. It is considered to be the 'fifth fuel' in Malaysia. It is anticipated that about 5% of the total electricity generation – about 600 MW – will come from renewable energy sources by the end of 2005. Biomass and biogas are considered the most important sources, especially in the Malaysian Palm Oil Industry. Also cogeneration activities are deemed to have significant potential in Malaysia. Studies have shown that palm oil mills produce substantial wastes or biomass that could be turned into a potential energy resource. Currently, there are some fiscal incentives available to encourage the use of renewable energy and to improve energy efficiency²⁶.

As a developing country, Malaysia is not committed to reduce its greenhouse gas emission under the UNFCCC and the Kyoto Protocol. However it is trying to take advantage of the provisions of the Clean Development Mechanism (CDM) under the Kyoto Protocol to increase its renewable energy sources. It is the policy of the government that CDM projects give priority to renewable energy projects. A National Committee on CDM has been set up at the Ministry of Natural Resources and Environment to evaluate and endorse projects for submission to the CDM Executive Board²⁷.

²⁴ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 184, 185

²⁵ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 199

²⁶ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 195, 196

²⁷ UNDP – Malaysia, achieving the millennium development goals, successes and challenges (2005), p. 195, 196

3. Environmental policy, legislative and institutional framework

3.1 Environmental policy and legislation

The Environmental Policy Objectives of Malaysia are geared towards ensuring continued economic, social and cultural progress of Malaysia and enhancing the quality of life of its people, through environmentally sound and sustainable development²⁸. These Objectives aim for:

- A clean, safe, healthy and productive environment for present and future generations
- Conservation of the country's unique and diverse cultural and natural heritage with effective participation by all sectors of society
- Sustainable lifestyles, patterns of production and consumption

The following principles that harmonise economic development goals with environmental imperatives are identified:

- Stewardship of the environment
- Conservation of nature's vitality and diversity
- Continuous improvement in the quality of the environment
- Sustainable use of natural resources
- Integrated decision-making
- Role of the private sector
- Commitment and accountability
- Participation in the community of nations

The legal basis for the environmental policies of Malaysia is provided by its first framework environmental legislation in the form of the Environmental Quality Act in 1974. Despite the fact that this act was amended several times, the Environmental Quality Act remains the main reference for all environmental policies and legislation.

Under this Act the following subsidiary legislation has been formulated (in chronological order)²⁹:

1. Environmental Quality (Prescribed Premises) (Crude Palm Oil) Regulations 1977
[P.U.(A) 342/77]
2. Environmental Quality (Licensing) Regulations 1977
[P.U. (A) 198/77]
3. Environmental Quality (Clean Air) Regulations 1978
[P.U. (A) 280/78]
4. Environmental Quality (Compounding Of Offences) Rules 1978
[P.U. (A) 281/78]
5. Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Regulations 1978
[P.U. (A) 338/78]

²⁸ Website of the Department of Environment,
<http://www.jas.sains.my/jas/bg/profile.htm>

²⁹ Website of Ministry of Natural Resources and Environment,
http://www.nre.gov.my//nre_bi/persekutuan.htm

6. Environmental Quality (Sewage and Industrial Effluents) Regulations 1979
[P.U. (A) 12/79]
7. Environmental Quality (Control Of Lead Concentration in Motor Gasoline) Regulations 1985
[P.U. (A) 296/85]
8. Environmental Quality (Motor Vehicle Noise) Regulations 1987
[P.U. (A) 244/87]
9. Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987
[P.U. (A) 362/87]
10. Environmental Quality (Scheduled Wastes) Regulations 1989
[P.U. (A) 139/87]
11. Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Order 1989.
[P.U. (A) 140/89]
12. Environmental Quality (Prescribed Premises) (Scheduled Wastes Treatment and Disposal Facilities) Regulations 1989.
[P.U. (A) 141/89]
13. Environmental Quality (Prescribed Premises) (Crude Palm Oil) Order 1977
[P.U. (A) 199/77]
14. Environmental Quality (Prescribed Premises) (Raw Natural Rubber) Order 1978
[P.U. (A) 250/78]
15. Environmental Quality (Delegation of Powers on Marine Pollution Control) Order 1993
[P.U. (A) 276/93]
16. Environmental Quality (Delegation of Powers on marine Pollution Control) Order 1994
[P.U. (A) 537/94]
17. Environmental Quality (Prohibition on the Use of Controlled Substances in Soap, Synthetic Detergent and Other Cleaning Agents) Order 1995.
[P.U. (A) 115/95]
18. Environmental Quality (Control Of Emmission From Diesel Engines) Regulations 1996
[P.U. (A) 429/96]
19. Environmental Quality (Prohibition on the Use of Chlorofluorocarbons and Other Gases as Propellants and Blowing Agents) Order 1993.
[P.U. (A) 434/96]
20. Environmental Quality (Control Of Emmission From Petrol Engines) Regulations 1996
[P.U. (A) 543/96]
21. Environmental Quality (Delegation of Powers) Order 1999
[P.U. (A) 501/99]
22. Environmental Quality (Refrigerant Management) Regulations 1999
[P.U. (A) 451/99]
23. Environmental Quality (Halon Management) Regulations 1999
[P.U. (A) 452/99]

24. Environmental Quality (Prescribed Activities) (Opening Burning) Order 2000
[P.U. (A) 308/00]
25. Environmental Quality (Clean Air) (Amendment) Regulations 2000
[P.U. (A) 309/00]
26. Environmental Quality (Compounding of Offences) (Opening Burning) Rules 2000
[P.U. (A) 310/00]
27. Environmental Quality (Delegation of Powers) (Investigation of Open Burning) Order 2000
[P.U. (A) 211/00]
28. Environmental Quality (Delegation of Powers) (Halon Management) Order 2000
[P.U.(A) 490/00]
29. Environmental Quality (Delegation of Powers) (Perbadanan Putrajaya) Order 2002
[P.U. (A) 233/02]
30. Environmental Quality (Dioxin and Furan) Regulations 2004
[P.U. (A) 104/04]
31. Environmental Quality (Control of Emission From Motorcycles) Regulations 2003
[P.U.(A) 464/03]
32. Environmental Quality (Declared Activities) (Open Burning) Order 2003
[P.U.(A) 460/2003]

Complementary legislation exists in such fields as mineral exploration, wildlife management, national parks, land use management, etc.

3.2 Environmental institutional framework

The Department of Environment (DOE) was established in 1974 following the adoption of the Environmental Quality Act. The DOE is responsible for the development of environmental policies and legislation.

Following an announcement of the Prime Minister, the DOE is attached to the Ministry of Natural Resources & Environment (NRE)³⁰ since March 2004. NRE was formed by bringing departments from 4 different previous ministries together:

- Ministry of Land and Co-operative Development;
- Ministry of Science, Technology and Environment;
- Ministry of Primary Industries;
- Ministry of Agriculture.

The scope of NRE is much broader than the previous situation when the DOE was part of the Ministry of Science, Technology and Environment.

NRE has ten different departments:

- Department of Environment
- Department of Director General of Lands and Mines
- Department of Survey & Mapping Malaysia

³⁰ <http://www.nre.gov.my/>

- National Institute of Land and Survey
- Forestry Department Peninsular Malaysia
- Forest Research Institute Malaysia
- Minerals and Geoscience Department Malaysia
- Department of Wildlife & National Parks Peninsular Malaysia
- Department of Irrigation and Drainage
- National Hydraulic Research Institute of Malaysia

NRE is active in the following fields:

- Natural resources management:
 - a. Forest management
 - b. Irrigation and drainage management
 - c. Wildlife management
 - d. Minerals management
- Conservation and management of environment and shelters:
 - a. Environmental conservation
 - b. Marine park management
- Management of land survey and mapping administration
 - a. Land management and administration
 - b. Land surveying
 - c. Mapping processing

The establishment of NRE reflects a higher political priority for environment, especially in light of its economic importance for the tourism and biotechnology sectors. However, confusions about the mandates of different departments, as well as regarding the authority of different levels of government (local, state, national) persist. A major weakness remains the incomplete implementation of environmental legislation, combined with an absence of well-equipped control mechanisms and adequate sanctions.

The NRE has an overall coordinating and monitoring responsibility for the implementation of environmental policies and legislation. The DOE for example is charged with the obligation to approve EIAs of individual projects. Reports indicate that local authorities and State authorities sometimes issue permits for the start of projects well before the EIA is approved³¹. So far many powers relating to environmental management remain at the State level. Land use planning is the exclusive mandate of State Governments. Also waste management is primarily organised by local and State authorities. Also due to its limited resources, NRE cannot be fully effective in its monitoring and enforcement role.

Malaysia's environmental activities extend beyond its national border. The country ratified or signed many multilateral environmental agreements, and is an active participant in meetings and conferences related to such agreements³²:

- Convention on Biological Diversity (CBD)
- Ramsar Convention on Wetlands

³¹ The Star (Malaysian Newspaper), Thursday 24 March 2005, p. 8

³² Mid Term Review 8th Malaysia Plan, Chapter 13: Sustainable Development, p. 449 (available on the website of the EPU: <http://www.epu.jpm.my/>)

- Convention on International Trade in Endangered Species (CITES)
- UN Framework Convention on Climate Change (UNFCCC)
- Kyoto Protocol
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- Montreal Protocol on Substances that Deplete the Ozone Layer
- Stockholm Convention on Persistent Organic Pollutants
- ASEAN Agreement on Transboundary Haze Pollution

3.3 Integration of environmental concerns into the main sectors

Sustainable economic development is the key objective of the Malaysian government. Environmental protection is instrumental in meeting this objective. Mainstreaming environmental concerns is expected to be an important aspect of the Ninth Malaysia Plan (2006-2010), which is currently prepared under the coordination of the Economic Planning Unit (EPU) in the Prime Minister's Department.

Within the EPU there is an Environment and Natural Resource Economics Division. This section has the following tasks:

- Formulating and evaluating policies and strategies relating to sustainable development, environment and natural resources management.
- Integrating environmental issues into development planning by promoting the use of appropriate economic instruments and self-regulatory measures.
- Analysing current policies and strategies with a view to ensuring the optimum utilization of resources, promoting sustainable consumption and production and protecting the environment.
- Monitoring discussions in multilateral environmental agreements to ensure that global environmental objectives are achieved without compromising the development needs of developing countries.
- Promoting bilateral cooperation and collaboration with regional and international organizations in environmental protection and conservation³³.

Detailed information about the mainstreaming of environmental concerns in policies and budgets of different government ministries and departments is not available. Both in terms of accessible technologies as well as resources, Malaysia may be considered very well capable of mainstreaming environmental concerns in its economic development. However, the general perception is that such mainstreaming would be difficult due to institutional and management constraints.

³³ <http://www.epu.jpm.my/New%20Folder/macro2.htm>

4. EU and other donor cooperation with Malaysia from an environmental perspective

The EC is supporting a few environmental projects in Malaysia via the Asia Pro Eco programme. Also via other horizontal, regional programmes projects with an environmental dimension are receiving EC support. The Asia Link programme is meant to provide support in the education sector. Of the 10 projects supported in Malaysia, at least 3 have a clear environmental component (e.g. environmental education, sustainable use of natural resources). The Asia Invest programme is meant to promote Euro-Asian business cooperation. Also under this programme some projects have an environmental dimension. Under the EC-ASEAN cooperation programmes, an environmental dimension is mostly reflected in energy projects (energy efficiency and renewable energy). In the research programme, attention for the environment is also reflected in a number of projects. Finally, an important facility is the Small Grants Programme for Operations to Promote Tropical Forests operated by the UNDP with EC funding³⁴.

Many of these EC supported projects are monitored directly from Brussels, due to which the overview of the Delegation in Kuala Lumpur is limited. No details were obtained relating to evaluation studies eventually carried out. The overview of EC supported activities in Malaysia, however, confirms that the environment as a crosscutting issue has obtained substantial attention. Most of the current activities are scheduled to come to an end by the year 2007. According to the Delegation, Malaysia still has serious problems in turning environmental awareness at the policy level into effective action. EU cooperation, therefore, should focus on policy advice, information sharing, and capacity building/training. Malaysia is considered to have enough access to environmental technologies³⁵.

Looking at the EU member states, Denmark is the only country that since 1994 consistently concentrated its cooperation programmes in the field of environment. It has supported 49 Government-to-Government projects, 33 NGO projects, 10 Partnership facilities and 2 Clean Development Mechanism Projects (CDM)³⁶. While in the beginning the Danish cooperation efforts were mostly targeting grand master plans (e.g. forest conservation), current support is mostly targeted at capacity building and policy development. The current programme that is agreed with the EPU (Prime Minister's Department) aims to contribute to the operationalisation of policies and strategies that enable Malaysia to achieve effective sustainable environmental management³⁷. However also for Denmark all project activities will come to a close by 2007.

³⁴ Project overview, provided by the EC delegation in Kuala Lumpur, 23.03.05

³⁵ Personal communication with Delegation, 23.03.05

³⁶ Status of Project Implementation, 1994 – 2007, provided by the Royal Embassy of Denmark, 23.03.05

³⁷ Cover page Malaysian-Danish ECP 2003-2006, Programme Document, provided by the Royal Embassy of Denmark, 23.03.05

The only other EU donor active in the environmental sector is the German GTZ. One project of GTZ is focused on the control of air pollution in Malaysia cities. This project covers all aspects of air pollution control: emission standards and enforcement for mobile and stationary sources (vehicles and industry/households), fuel quality, urban development and urban transport planning, social participation and communication, data quality, regional environmental management and cooperation with the private sector. GTZ currently supports two projects in the field of sustainable forest management, in which multi-functional forest resources management is stressed³⁸.

Other non-European donors active in the environmental sector are the Global Environment Facility (GEF), the UNDP and the Japan International Cooperation Agency (JICA, Japan). JICA formulated a 'Country Profile on Environment' for Malaysia in 2002³⁹.

5. Conclusions and recommendations

For the last 30 years, promoting a sustained economic growth has been at the heart of all policies of the Malaysian Government. In recent years the awareness has been growing that these efforts increasingly result in severe environmental problems.

The following issues have been identified as essential environmental concerns:

- Forest degradation and loss of biodiversity, particularly in East Malaysia
- Water management, especially the conservation of water sources and the prevention of pollution of groundwater and rivers
- Air pollution, particularly due to the transportation sector, industrial emissions and forest fires
- Management of (chemical) waste, and the need for prevention, monitoring and proper disposal
- Food safety standards and procedures
- Energy efficiency and the promotion of renewable energy

Some of the environmental concerns are complicated by a number of challenges in the field of policy development:

- ✧ Uneasy balance between environmental concerns and economic interests, due to which environmental policy makers are persistently forced to be on the defensive. The challenge is to demonstrate the positive economic impacts of environmental policies, especially in the long run.
- ✧ While most environmental policies are made at the national level, their effectiveness largely depends on the implementation at the local and State levels. The challenge is to ensure that national policies are implemented uniformly at all levels of government, throughout the country.

³⁸ <http://www2.gtz.de/malaysia/index.html>

³⁹ <http://www.jica.go.jp/english/global/env/profiles/pdf/01.pdf>

- ✧ In general the public is little aware of the serious environmental problems in their country. The challenge is to overcome the public indifference and to raise the environmental awareness of the public at large.

To address these environmental concerns in an effective way, the following priority actions may be recommended:

1. Capacity building of local and State authorities to better enable them to effectively implement environmental policies. In general civil servants at these levels of government less frequently change their posts, due to which capacity building programmes have a high chance of taking root.
2. Promotion of market-driven pollution control policies on the basis of the 'polluter pays' principle. This should in particular apply to the following discharges:
 - a. Waste water, and other effluents
 - b. Emissions in the open air
 - c. Other waste products
3. Promotion of energy efficiency and renewable energy resources
4. Enhancing the capacity to monitor the food chain regarding the application of food safety criteria.

In the new CSP for Malaysia, trade and investment as well as higher education are recommended to remain focal areas. In the light of the severe nature of the environmental concerns, environment should be considered to become the third focal area. The new CEP could serve as a starting point to establish a sustained policy dialogue with the Malaysian Government as well as with other partners in international cooperation. The need for mainstreaming environmental concerns in the overall development planning of Malaysia should become one of the key agenda items for such a policy dialogue. Knowledge sharing and capacity building should be the angle for such exchange. There is no specific need for the transfer of environmental technologies, since Malaysia has ample resources to access these without external support.

To enable a fruitful environmental policy dialogue, the EC might consider the following specific recommendations:

- I. A working relationship should be established with the EPU in the Prime Minister's Department, in particular with the Environmental and Natural Resources Section in the Macro Planning Division. This department is essential in mainstreaming environmental concerns in the development planning of the Malaysian Government.
- II. In the field of trade and investment, an open dialogue should be considered on the application of environmental standards and procedures in the various sectors of the economy. As an example Malaysian authorities should be better informed about the

backgrounds to sanitary or phytosanitary standards of the EU in relation to food security, or electronic waste and eco-efficiency standards in relation to electronic products. Also it would be useful to facilitate better access of Malaysian civil servants to technical environmental databases.

- III. In the field of higher education, specific attention is recommended for the promotion of environmental policy research, environmental sciences, and environmental education programmes. Such programmes should in particular aim at civil servants at the local and State levels.